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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,554	02/25/2002	Chun Liang Lee	P67639US0	8284

136 7590 09/22/2004

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EXAMINER	
BONZO, BRYCE P	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/080,554	LEE, CHUN LIANG	
	Examiner	Art Unit	
	Bryce P Bonzo	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

NON-FINAL OFFICIAL ACTION

Status of the Claims

Claims 1-9 and 12 are rejected under 35 USC §102.

Claims 10, 11 and 13-15 are rejected under 35 USC §103.

Rejections under 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tan et al. (United States Patent Publication No 2003/0126315).

As per claim 1, Tan discloses:

A fault tolerant transmission device for an information processing system with a first independent system and a second independent system, which comprises:

a server (figure 1, item 134), which is connected to the first independent system and the second independent system (figure 1, item 240, 260) for sending an enable signal when any of the independent systems has errors and cannot transmit data (page 5, ¶39/40: these paragraphs describe the use of various signals which reconfigure or "enable" the system to perform in a fault recovery manner); and

a connecting system (figure 3, item 310), which is connected to the first independent system and the second independent system for transmitting data that are unable to be transmitted by the independent system with errors through the connecting system and the other independent system after the enable signal is received (page 3, ¶24 discloses the presence of back up data available to each controller; page 4, ¶33 discloses fail over in a manner in which the back up controller carries out data transfers in place of the failed controller).

As per claim 2, Tan discloses:

wherein the first independent system further comprises: a first control unit, which controls the data transmission of the first independent system (page 4, ¶31 control units are an inherent portion of a controller);

a first connecting unit, which is connected to the first control unit for receiving commands from the first control unit and is connected to the server for receiving the enable signal and transmitting the enable signal to the connecting system (page 4, ¶31 the links are requires connecting units to interface to; Figure

3, item 204/208 are illustrative connectors at the opposite end of the communication line and require a matching not shown mate in Tan);

a first transmission unit, which is connected to the first connecting unit for transmitting data of the first independent system, is connected to the connecting system, and simultaneously transmits data of the first independent system and the second independent system when the second independent system has errors (Figure 3, item 314/318 are the lines which must have a transmission unit attached in order have data driven on them); and

a first storage unit, which is connected to the first transmission unit for storing data of the first independent system (Figure 3, item 342 is a storage device attached to the controller).

As per claim 3, Tan discloses:

wherein the first transmission unit is a SCSI (small computer system interface) bus (page 4, ¶31 discloses SCSI buses and devices).

As per claim 4, Tan discloses:

wherein the first connecting unit is a SCSI (small computer system interface) connector (page 4, ¶31 discloses SCSI buses and devices which must have SCSI connectors).

As per claim 5, Tan discloses:

wherein the first storage unit further contains at least one hard disk drive (page 2, ¶11: "such as hard disk drives arranged as RAID").

As per claim 6, Tan discloses:

a second control unit, which controls the data transmission of the second independent system(page 4, ¶31 control units are an inherent portion of a controller);

a second connecting unit, which is connected to the second control unit for receiving commands from the second control unit and is connected to the server for receiving the enable signal and transmitting the enable signal to the connecting system (page 4, ¶31 the links are requires connecting units to interface to; Figure 3, item 204/208 are illustrative connectors at the opposite end of the communication line and require a matching not shown mate in Tan);

a second transmission unit, which is connected to the second connecting unit for transmitting data of the second independent system, is connected to the connecting system, and simultaneously transmits data of the second independent system and the second independent system when the first independent system has errors(Figure 3, item 314/318 are the lines which must have a transmission unit attached in order have data driven on them); and

a second storage unit, which is connected to the second transmission unit for storing data of the second independent system (Figure 3, item 342 is a storage device attached to the controller).

As per claim 7, Tan discloses:

wherein the second transmission unit is a SCSI (small computer system interface) bus (page 4, ¶31 discloses SCSI buses and devices).

As per claim 8, Tan discloses:

wherein the second connecting unit is a SCSI (small computer system interface) connector (page 4, ¶31 discloses SCSI buses and devices which must have SCSI connectors).

As per claim 10, Tan discloses:

wherein the second storage unit further contains at least one hard disk drive (page 2, ¶11: "such as hard disk drives arranged as RAID").

As per claim 12, Tan discloses:

wherein the server is further installed with a GPIO (general purpose input/output) interface for connecting the first connecting unit and the second connecting unit (Figure 2, item 130 connects to both connecting units).

Rejections under 35 USC §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. (United States Patent Publication No 2003/0126315).

As per claim 10, Tan does not explicitly disclose:

the connecting system is a SCSI bus bridge. Official Notice is given that is it notoriously well known to use SCSI bridges in SCSI communication networks. Bridges offer increased reliability, connectivity and expansion in a storage device network. Therefore it would have been obvious to incorporate a SCSI bridge into a SCSI storage network in order to increase the extensibility of the network of Tan, resulting in a larger, more reliable array of SCSI devices.

As per claim 11, Tan does not explicitly discloses:

the connecting system is a SCSI bus expander. Official Notice is given that is it notoriously well known to use SCSI expanders in SCSI communication networks.

Expanders offer increased reliability, connectivity and expansion in a storage device network. Therefore it would have been obvious to incorporate a SCSI expanders into a SCSI storage network in order to increase the extensibility of the network of Tan, resulting in a larger, more reliable array of SCSI devices.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (United States Patent No. 6,587,970 B1).

As per claim 13, Wang discloses:

providing a fault tolerant mechanism when the information processing system is functioning (column 7, lines 18-46);

recording data of the first independent system and the second independent system in a memory unit (column 6, lines 23-26);

independently transmitting data in the first independent system and the second independent system (Figure 2 shows independent communication lines);

the information processing system monitoring when any of the independent systems has errors and does not function correctly (column 7, lines 3-17);

sending data of the independent system with errors along with a combination message to the other independent system (column 9, lines 38 through column 10, line 8 and column 11, lines 1-63);

starting the fault tolerant transmission mechanism (column 7, lines 18-46); and

the normally functioning independent system temporarily completing transmission jobs before the independent system with errors is repaired (column 5, lines 23-45).

Wang does not disclose:

notifying a user through the information processing system. Official Notice is taken that alerting an administrator to a fault in a commercial grade networking server is well known. This allows the manger of system to known there is in fact a problem and plan for the long term. While most systems have redundant and fail over capabilities at this level, they can not be turned on and forgotten forever as their manufacturers speciously claim in their advertisements. Administrator must still replace parts, run additional diagnostics and perform a variety of other house keeping. A clear analogy are automatic power back up. An administrator expects the back up power system to activate in a power failure, however that same administrator would also want to know that he is running on back up power. Thus it would have been obvious to one of ordinary skill in the art at the time of invention alert a user to the activation of a failure mechanism in the computer system of Wang, thus creating a more user aware system which allows administrator action post recovery.

As per claim 14, Wang discloses:

wherein the memory unit is an MOS (metal oxide semiconductor) (column 6, lines 17-36: Wang discloses any memory as being viable, and by inclusion MOS which happens to be used in RAM DISKS).

As per claim 15, Wang discloses:

wherein the memory unit is an NVRAM (non-volatile random access memory) (column 6, lines 17-36: Wang discloses this by inclusion as any suitable memory, further more most RAM DISKS are comprised of NVRAM).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P Bonzo whose telephone number is (703) 305-4834 or upon moving to the new facilities in Alexandria (571) 272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713 or upon moving to the new facilities in Alexandria (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryce P. Bonzo

Bryce P Bonzo
Examiner
Art Unit 2114

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